

Notice of Allowability

Application No.

10/027,824

Examiner

Emmanuel Bayard

Applicant(s)

LAUER, JOSEPH PAUL

Art Unit

2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 7/5/05.
2. ☒ The allowed claim(s) is/are 1, 3-20.
3. ☒ The drawings filed on 20 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

This is in response to amendment filed on 7/5/05 in which claims 1 and 3-20 are pending. The applicant's amendments have been fully considered therefore this case is in condition for allowance.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dorrian, Colin on 8/20/05.

The application has been amended as follows:

In claim 1, line 16, "the" before designated has been replaced with --a--.

In claim 6, line 6 "a" before designated has been replaced with --the--.

In claim 8, line 6 "the" before signal has been replaced with --a--.

In claim 8, line 3 "the" before location has been replaced with --a--.

In claim 9, line 15 "the" before designated has been replaced with --a--.

In claim 10, line 7 "the" before signal has been replaced with --a--.

In claim 10, line 5 "the" before location has been replaced with --a--.

In claim 10, line 1 "8" before wherein has been replaced with --9--.

In claim 12, line 6 "the" before nearest has been deleted.

In claim 13, line 5 "the" before candidate has been replaced with --a--.

In claim 13, line 6 "the" before smallest has been replaced with --a--.

In claim 18, lines 12-13, "points" after constellation has been replaced with --point-- respectively.

2. The following is an examiner's statement of reasons for allowance: the prior arts of record fail to anticipate or render obvious the following recited features: determining a scaling factor corresponding to the hard decision point comprises selecting a first constellation corresponding to the hard decision point and determining a second constellation point corresponding to a nearest constellation point having a designated received bit as recited in claims 1 and 9. Using the scaling factors and the hard decision point to determine decoder metrics and provided the decoder metrics and quantized point to a viterbi decoder as recited in claim 11. A scaling factor unit that determines scaling factors associated with the constellation point and a metric calculator that accepts the scaling factors and the constellation point and determine branch metrics for the constellation point as recited in claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tanrikulu U.S. Patent No 6,421,394 B1 teaches a computer method and apparatus for modem point slicing.

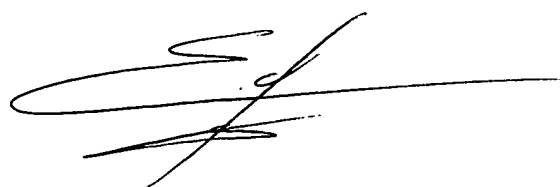
Zhang U.S. Patent No 6,928,120 B1 teaches a methods and apparatus for use in reducing residual phase.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vanderpuye Kenneth can be reached on 571 272 3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard
Primary Examiner
Art Unit 2638

A handwritten signature in black ink, appearing to be 'E. Bayard', with a long horizontal stroke extending to the right.